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COUNTY OF LOS ANGELES PROBATION DEPARTMENT

9150 EAST IMPERIAL HIGHWAY – DOWNEY, CALIFORNIA 90242

(562) 940-2501



JERRY E. POWERS
Chief Probation Officer

May 27, 2014

TO: Supervisor Don Knabe, Chairman
Supervisor Gloria Molina
Supervisor Mark Ridley-Thomas
Supervisor Zev Yaroslavsky
Supervisor Michael D. Antonovich

FROM: Jerry E. Powers
Chief Probation Officer

J.E.P.

SUBJECT: **LOS ANGELES COUNTY PROBATION DEPARTMENT 90-DAY
REPORT ON GPS ELECTRONIC MONITORING CONTRACT**

At the Board Meeting on February 25, 2014, the Chief Probation Officer was directed to report back to the Board at the meeting of May 27, 2014, on the status of staff training and internal policies to be implemented related to electronic monitoring and the GPS programs.

This report summarizes the current status of the Department's review and progress on this contract.

SUMMARY:

This report summarizes the progress since February 24, 2014. During this period, the Department has recruited and assigned 14 specialized Deputy Probation Officers (DPOs), two specialized Supervising Deputy Probation Officers (SDPOs), a specialized Assistant Director (AD) and the Director. These individuals started their assignment effective May 5, 2014. During this period the Department provided all assigned staff specialized training in all aspects of their new assignments. Since February, 16 hours of formal training have been conducted by the department in conjunction with countless hours of field and office hands on training. Feedback has been received from all participants after each training session and successive training covers any feedback from prior training.

Sixteen hours of training was provided by the vendor and additional training on policy was provided internally by supervisors as appropriate. Training needs on policy varied from individual to individual depending on prior experience. Training has covered the following subjects for all DPOs:

- General navigation of the automated system;
- Procedure for reviewing tracking data and policy on documentation;
- Creation of appropriate case-specific zones. These are "Exclusion Zones" for areas where the subject is not permitted to be and "Inclusion Zones" where the subject is required to be at a certain location for specific times. These Zones will generate automated alerts that the DPO is required to "clear" per policy;
- Policy and procedure for clearing alerts and the associated documentation and entries in automated systems as well as taking corrective action, including arrests, shock incarceration, warrants and violation reports to the court.

A workgroup has been formed to develop a more clear formalized policy on GPS tracking. Existing policy covers general supervision for both formal probation cases and for AB 109 Post-release Supervised Persons (PSP). New policy is being developed to cover specific GPS tracking requirements. The basic policy requirements are currently in the form of memoranda and written instructions. It is anticipated that formal Directives will be issued in June, 2014.

In addition to policy formulation, this group guides requests for the vendor to modify the system and/or to provide additional management reports. Probation has requested a number of system enhancements. To date, the vendor has agreed to supply all. The Department has specified a number of management reports that are wanted from the vendor. To date, they have agreed to all and a number are currently in place. Both creating new system enhancements and additional management reports will be an ongoing process for the foreseeable future.

SYSTEM ENHANCEMENTS:

System enhancements that are designed to increase efficiency include the following:

- Color coding of points;
- Increasing number of on-screen points from 4 hour period to 24 hour period (allows the DPO to view recent history more efficiently);
- "Lock-Start" added function. This is a significant efficiency enhancement because resetting the date with each case is quite time consuming;
- "Stacking" of points (this automatically shows places where the subject spends a lot of time);
- Enhanced labeling of zones;
- Icons for inclusion zones;

- Icons for exclusion zones
- New flagged zones for information purposes;
- Color changes on zones;
- Adding a time parameter capability to zones;
- Inclusion zone around entire county (this will need further modification due to number of alerts related to adjacent counties);
- Enhanced rapid address display (displays addresses more efficiently/quickly);
- Event detection (sometimes called Crime Scene Correlation);
- More information on battery level on the main screen;
- New on-screen "tamper" notification;
- New e-mail notification system for alerts;
- DPO-specific logons (to enhance security);
- DPO/caseload specific notification on alerts;
- Nomenclature change to reduce ambiguity on alerts and equipment status;
- Enhanced enrollment screen that now has extended information including a picture of the subject.

NEW MANAGEMENT REPORTS:

Per the Department's request, a number of new management reports are being created to improve DPO performance, oversight and accountability. As of May 2, 2014, the following reports were put in place:

- "STOPS" reports (reporting where the subject stayed for longer than the threshold period);
- On-screen alert clearance and automated report that tracks the DPO's clearance of alerts;
- Cases assigned by DPO. Daily AM report emailed to DPO;
- Cases assigned by Unit to SDPO (i.e., breakdown of cases assigned to DPOs under the SDPO);
- Breakdown of all cases by DPO and SDPO report to Assistant Director (Howard) and Director (Davila);
- All alerts by type and DPO to DPO and SDPO with copy to Assistant Director and Director. (i.e., alerts sorted by exclusion zone, tamper, battery, etc. *and* sorted by DPO and Unit.) DPO name, exclusion zones, tampers, and group by alerts for whole unit;
- Report of Absconds sorted as immediately above - Distribution list as follows: DPO, SDPO, Assistant Director and Director;
- Zone count by participant and DPO - Distribution list as follows: each DPO, SDPO and Assistant Director;
- Zones labeled in a manner such as (school, victim, park, etc.) so that reports can specify the zone type beyond just inclusion and exclusion. (This is pending zone names and will be in place by June 1, 2014);

- On a weekly basis the vendor emails a zone report which indicates the client names, zone broken down by type and the total number of zones applied to the client.

MANAGING ALERTS:

The combination of more efficient handling of alerts by DPOs as a result of training and the improved notification on alerts has significantly reduced the number of alerts that DPOs receive on any given case. The average number of alerts that a DPO receives and handles per month as of May 15, 2014, is approximately 30 alerts on a caseload of 20 cases. This is a significant reduction as compared to the previous number of alerts which ranged from two to four thousand per week. With the new functionality of the system as outlined above the average alert can be researched and cleared in approximately five minutes. Some alerts will take considerably longer than others. Both the rate of alerts and the time to clear alerts has dropped considerably since the establishment of the specialized GPS unit and the system enhancements. Given the very short period of time under review, it is uncertain as to where this rate will stabilize.

ADDITIONAL RESOURCES AND RESPONSE CENTER:

The Department is increasing our resources at our Alhambra Response Center. Five new items have been allocated. This operation handles high priority alerts that come in after normal business hours (nights, weekends or holidays) when the assigned DPO is not available. On alerts that pose potential immediate public safety threats, the Response Center notifies local law enforcement or the Department's Special Enforcement Operation immediately. The Response Center will also conduct ongoing audits to assess progress and/or problems.

The vendor has added three new people to its monitoring center to work specifically with Los Angeles.

HARDWARE UPGRADES AND IMPROVEMENTS:

The vendor has made improvements in hardware provided to the Department, resulting in equipment problems decreasing significantly. Since November, 2013, the vendor has introduced a new "chip set" that uses cellular triangulation in addition to GPS satellite signals. This appears to have contributed to a noticeable reduction of missing tracking points. A new battery charger was also introduced since the last report reducing the number of battery charging issues. Finally, in April, a new case and ankle strap were introduced. The new strap has fiber optic sensing and is expected to be more effective in detecting tampering.

PERSONNEL ALLOCATION AND TRAINING TIMELINE:

- March 15, 2014: Selection was completed for 14 specialized Deputy Probation Officers (DPOs), two specialized Supervising Deputy Probation Officers (SDPOs), one specialized Assistant Director (AD), and one general oversight Probation Director. With the exception of the Probation Director who has some additional responsibilities, these positions are 100% dedicated to GPS monitoring. These DPOs and SDPOs will handle all GPS cases, including AB 109 Post-release Supervised Persons (PSP), Sex Offenders on Probation, and Youth Authority releases with monitoring requirements.
- March 27, 2014: All specialized personnel received one full day of specialized training. Feedback was obtained to determine further training needs and to identify appropriate system modifications.
- April 14, 2014: Second round of full-day training completed. This included issues based upon feedback from participants in the prior training as noted immediately above.
- April 14, 2014: Safety equipment, including vouchers for bulletproof vests were issued to all DPOs and SDPOs.
- April 15, 2014: Transfer of GPS cases to specialized DPOs began. All GPS cases were reassigned by April 22, 2014. Total number of active cases reassigned is approximately 260. Targeted caseload size is 20.
- May 2, 2014: Thirteen of the selected DPOs moved to the new positions. The fourteenth DPO moved May 5, 2014.
- Ongoing training will continue through May, and June, 2014. In addition to technical training on use of the GPS system, additional training will cover field safety issues, the Containment Model and associated legal requirements for registered sex offenders, the violation process for sex offenders and the violation process for PSPs released under the provisions of AB 109.

SUMMARY OF TRAINING CONTENT:

- Training is ongoing. The first sixteen hours of training was completed April 14, 2014;
- The following items specific to GPS have been addressed to date:
 - General navigation of the automated system;
 - Procedure for reviewing tracking data and policy on documentation;
 - Creation of appropriate case-specific zones. These are "Exclusion Zones" for areas where the subject is not permitted to be and "Inclusion Zones" where the subject is required to be at a certain location for specific times. These Zones will generate automated alerts that the DPO is required to "clear" per policy;
 - Policy and procedure for clearing alerts and the associated documentation and entries in automated systems as well as taking corrective action,

including arrests, shock incarceration, warrants and violation reports to the court.

In addition to the technical training, Supervising Deputies and the new Assistant Director have begun training on internal policy with the new DPOs. Thus far, the specialized DPOs show a marked improvement in overall performance.

CURRENT CASELOAD SIZES AND CASE TYPES:

The average caseload size is currently 18.5 with a range of 13 to 24. Adjustments are being made to distribute cases more evenly. The reason for differing caseload sizes is the geographical distribution of the cases.

The current breakdown of types of cases on GPS is: Sex Offender (probation & PSP combined) 71%; court ordered (non-sex offender) 20%; placed on GPS by Probation Officer 1%; Mentally Disordered Offender .01%.

SUMMARY:

As indicated above, the department in conjunction with the vendor has implemented the critical components of an effective GPS monitoring program. Certainly the significant number of changes reflected above is an indication of how far the departmental management and the vendor were from operating an effective program. While the improvements are many and the components are in place for an effective program, significant training and ultimately staff experience will be the critical factors in ensuring that the program is operating at appropriate levels.

Please contact me if you have any questions or need additional information, or your staff may contact Deputy Chief Reaver Bingham, at (562) 940-2513.

JEP:MEP:REB:ed

c: William T Fujioka, Chief Executive Officer
Sachi A. Hamai, Executive Officer, Board of Supervisors
Brence Culp, Chief Deputy, Chief Executive Officer
John Krattli, County Counsel
Georgia Mattera, Public Safety, Chief Executive Office
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JERRY E. POWERS
Chief Probation Officer

November 26, 2014

TO: Supervisor Don Knabe, Chairman
Supervisor Gloria Molina
Supervisor Mark Ridley-Thomas
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Supervisor Michael D. Antonovich

FROM: Jerry E. Powers *Revised Bingham for J.P.*
Chief Probation Officer

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This report summarizes the current status of the Department's review and progress on this contract over the past 90 days.

SUMMARY:

This report summarizes the progress since the August 26, 2014 report. Sixty days of the past 90 days were devoted to a 100% audit of all 240 active cases. The audit was completed on November 3, 2014. Probation is currently analyzing the results of that audit and will have a separate audit report by the end of the month.

Preliminary review of the raw data indicates several things.

- The percentage of lost or missing GPS location points is calculated at 14% which is the same rate as reported in the 2013 audit and in the resulting 2013 Contract Discrepancy Report (CDR). This rate is viewed as unacceptable and raises public safety issues. In addition to the 14% rate, there were a number of instances where probation found that GPS points were missing but

probation was not notified by Sentinel that there was a problem. Probation discovered these instances in the course of the audit. While this does not change the rate one way or the other, it increases public safety concerns because we are not notified of the problem in some of these cases.

- The rate of equipment exchange in the current audit was at 30%. This is a significant increase over the rate found in the 2013 audit. The actual percentage rate in 2013 was 26%. However, as Sentinel pointed out in their response to the 2013 CDR, a number of the equipment exchanges in 2013 were due to hardware upgrades. During the present audit period, there were no exchanges of equipment to accomplish upgrades. Thus, in comparing the equipment exchange rates, the 26% in 2013 is inflated and the difference between the two rates is actually greater than 4%. It is estimated to be closer to 7%. Equipment exchange is not a significant problem when it is due to a planned upgrade. When it is not planned, however, it involves a period of malfunction where we lose track of the subject that we are tracking. In a significant percentage of these cases, tracking points were lost for extended periods. These extended periods were from a minimum of 4 hours to 3 ½ days.
- The raw data in the audit shows a high number of total alerts. The total of all of the alerts is misleading in some regards. First, Sentinel's software generates automatic alerts for various conditions. These conditions include "No Cell", "No GPS", "Tamper", "Battery". Taking "No GPS" as an example, Sentinel's software generates an alert at one hour, two hours, three hours, four hours, eight hours, and 12 hours. Thus, if the subject damages the unit, the alerts begin and continue as the deputy investigates the circumstances. A unit that has become defective will continue to generate alerts until it is replaced. This frequently takes 12 hours to investigate and set up the exchange for a new unit. So this one instance will generate seven "No GPS" alerts. The system will also simultaneously generate "No Cell" alerts at the same time for the same unit. The same incident will also generate a "tamper", and several "Low Battery" alerts. In receiving all of these alerts, the deputy knows that they are all related to the same incident. They do not represent multiple incidents where the deputy must spend time on each one.

The raw data from the 60 day audit showed a total of 3,700 alerts per month spread over 240 cases. This comes to approximately 925 alerts per week which is 3.8 per case. Two thirds to three quarters of these are either informational and require no further action or they were redundant (repeated on the same case for the same reasons). This means that the average number of alerts that the deputy must act on is approximately 1 per case per week. Alerts that the deputy must respond to continue to run at approximately 20 per week per caseload of 20 (which is yardstick).

SYSTEM ENHANCEMENTS:

The primary enhancement that occurred during the last nine months was a hardware upgrade that added Advanced Forward Linking Trilateration (AFLT). This function is designed to take over when GPS satellite communication is lost. AFLT triangulates based on local cellular towers. It is designed to cut in automatically when the GPS points are lost. When AFLT generates points based on this cellular triangulation, the points show up on the map but they are far less accurate than GPS points. The problem that the audit discovered is that when the unit goes to AFLT, it sometimes locks up in the cellular triangulation mode and does not go back to using GPS when satellite signals are available again. Probation discovered cases where the unit reported cellular triangulation four hours while GPS positioning was available.

A second enhancement that was found to be problematic in a number of cases was the use of Radio Frequency-based (RF) Home Units. These units are placed in a home in circumstances where satellite communication is blocked by the building. The GPS unit is supposed to automatically switch over to RF communication while the GPS unit is in range (i.e., within a certain distance of the base unit). This also has the advantage of saving battery life since the person will spend a significant amount of time at home and the RF unit does not draw down the GPS unit's battery as much as true GPS positioning. Several cases were found where once the RF unit took over GPS communication was not returned when the person left home. In these cases, the subject was out and about but Probation was still seeing him or her as being at home.

Sentinel has been unable to fully explain or fix either of the above issues to date.

Probation has experienced a significant amount of inaccuracies in the reported position of offenders or drift. There are no current industry standards for drift nor does Probation have any comparison data for other vendors. By January 2015, probation will have tested five (5) additional vendors and will be able to compare the relative accuracy of Sentinel's product to other electronic vendors. Probation has requested "Certification" of some of the inaccurate GPS data. This is a process where the provider reviews specific GPS data and certifies the accuracy. This usually occurs in criminal court cases. In this instance, it was an audit matter. The certification request was made during the audit and Sentinel has not responded (at this point for more than 14 days). Some vendors supply tools and/or certification statements that verify the accuracy of points. This includes specifying the number of satellites that were used in determining the location and the use of Horizontal Dilution of Precision (HDOP) to assess accuracy. Sentinel does not provide these, though they are commonly available in terms of current technology. The absence of current technology regarding accuracy could be problematic in any court action where GPS location was used in a criminal prosecution.

CURRENT CASELOAD SIZES:

The current range of caseload sizes is a high of 23 and a low of 12 with an average of 17. Some workload is shared in order to level workload across deputies. This range is due to the geographical distribution of cases combined with some turnover of personnel. Probation is currently exploring alternatives to more efficiently manage the distribution of cases. The percentage composition of cases remains the same: Sex Offenders (felony probation high risk and post release community supervision Sex Offenders) at 88%; court ordered (non-sex offender) 10%; placed on GPS by Probation (community safety concern) 1%; decertified Mentally Disordered Offender .01

CONCLUSION:

Probation will meet with County Counsel in early December, 2014 to discuss options. Preliminary results of the current audit indicate further action is needed. Sentinel has improved in some areas since the 2013 CDR. However, several critical performance areas remain at the same unacceptable level or, in some areas, have grown worse.

Please contact me if you have any questions or need additional information, or your staff may contact Deputy Chief Reaver Bingham, at (562) 940-2513.

JEP:MEP:REB:ed

c: William T Fujioka, Chief Executive Officer
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